

Going, Going, Gone?

Objective

Working in teams, students will research diminished species, present their findings to the class, and offer possible solutions.

Standards of Learning: Science 6.9, LS.9, LS.10, LS.11, BIO.1, BIO.8
(Also 4. 5 and 4.9, but lesson is designed for grades 6+)

Materials

Computers and other research materials
Presentation media (team's choice)

Background

Over time, both natural and human-caused changes have altered Virginia's forested landscapes. Some species have diminished in abundance, while others have almost disappeared from our forests. Some species of concern in Virginia are American chestnut (*Castanea dentata*), longleaf pine (*Pinus palustris*), Atlantic white-cedar (*Chamaecyparis thyoides*), shortleaf pine (*Pinus echinata*), Eastern hemlock (*Tsuga canadensis*), and the red spruce (*Picea rubens*)-Fraser fir (*Abies fraseri*) forest type. Causes of species decline vary, but the impacts can be felt throughout an entire ecosystem.

Activity

Divide the class into 6 teams. Each team will research one of the species or groupings listed above, using reputable online and other resources. Each team will develop a report that includes the tree's historic and current range, historic usage, ecological importance, reasons for its decline, and research and restoration efforts. The teams should also be prepared to discuss any limitations and challenges to restoring the species, and decide on possible strategies to restore it. Teams will present their findings to the rest of the class; creative approaches to presenting the information should be encouraged!

Questions for Teams to Consider As They Discuss Solutions

Why did the species/forest type decline? Are the reasons still a problem today?

What is currently being done to restore this species/type?

Do you think these efforts are working/will work?

What are the biggest challenges to restoring the species/type?

What are the benefits of restoring this species or the ecosystem it represents?

What are possible long-term effects of not restoring this species/type?

Lesson Plan Developed by Ellen Powell, Virginia Dept. of Forestry